

Old Frontiers Sector

Acropolis (Zeus III)

Acropolis is a populous and long-settled world, and a very Earthlike one. Though it has even less land area than Earth, a higher percentage of the land is usable. The three large continents (Hera, Aphrodite and Athena) and the large island group known as the Muses are all fully settled. Even the badlands of central Hera are being reclaimed.

Cloning is very common on Acropolis, and this has had a number of social effects. An individual has a legal right to control his own "genotype" on Acropolis. This means that a person may not be cloned without his own consent....but also that he may have himself cloned as many times as he can afford. If a clone is decanted in infant form, it has no civil rights unless its owner (the original person, or whoever the clone was sold to) chooses to free it. An original may sell cell samples to others wishing to raise his (or her) clone.

This all means that clone and clone-related technology is cheap on Acropolis; all cloning costs are only 75 % normal. It also means that (for instance) intelligent or attractive visitors will be invited to sell cell samples.

And it means that much of the menial labor on Acropolis is done by "dupes"-cloned slaves. The Acropolites see nothing wrong with this. Nor do the dupes; they've been conditioned from birth to see this as the normal state of affairs. Thus, slavery is legal here, for clones only, and clone slaves can be bought and sold. There is also a thriving black market in illegal clones, from cell samples taken without the owner's consent.

Acropolis law requires everyone born (or decanted) on the planet to be tattooed on the forehead to show their status; these tattoos show up only under ultraviolet light, but UV radiators are everywhere and Police carry UV wands to let them read ID tattoos. Offworlders, of course, aren't required to have tattoos, but will constantly have to prove that they are from off-planet.

Another facet of life on Acropolis: Those who can afford it will often have themselves cloned repeatedly, freeing the clones and raising them as part of a large and growing clone family. This becomes especially interesting when an intelligent, talented person, who gets along well with "himself," multiplies his talents manyfold. The law firm of Niemann, Niemann, Nieman, Niemann, Nieman and Niemann is just one example. Acropolis-registered Free Traders are likewise often crewed by a clone family of a dozen or so. All the crew, from the old Captain to the ten-year-old cabin boy, will have the same face. Or two or three people with complimentary personalities and talents may form a family, each cloning himself a dozen times or so.

Some clone families keep the exact same name and distinguish themselves by numbers (Joe-4 Bekosky). Others use different middle names; still others adopt other ways of distinguishing themselves. And some make no effort at all to tell each other apart; they consider themselves interchangeable, even within the family. When outsiders meet clones like this, an IQ roll is required to tell them apart, if it matters (+3 for Empathy or long acquaintance).

Alhambra (Golden IV)

The Alhambra Pleasure Planet is known for hundreds of parsecs as a vacation spot without parallel. Originally, the world was lifeless. Its weather was pleasant, and its oceans were beautiful . . . but the atmosphere was pre-Terrestrial, with no oxygen.

The empty planet was purchased by a consortium of entertainment corporations. Thanks to their efforts, Alhambra is now lively enough for even the most jaded tastes. The giant pressurized pleasure domes of New Xanadu provide a wide variety of both decadent and family amusements. The low gravity makes an impressive range of challenging yet relatively safe "outdoor" sports possible as well. And regular shuttles from the planet's starport takes visitors to several orbiting stations — or one of Alhambra's three natural moons — for even more exotic entertainments.

In addition to its regular features, Alhambra is the site of several annual or semi-regular festivals and conventions, including the week-long annual "Mother Earth Reunion" convention, at which visitors of Terran descent honor their Terrestrial roots with games, banquets and other festivities.

Only about 4 million of Alhambra's population are permanent inhabitants. The rest are guests. Their number ranges from 5-6 million during the off season to 20 million or more during Earth Reunion.

Alhambra is not cheap. Even those visiting the least expensive domes can expect to spend an average of \$5,000 per person per day, not counting transit costs to and from the planet. The higher-class amusement centers can run into the millions of credits per day per guest, especially the high-stakes gambling casinos and the exclusive resort called Sybaros, on the opposite side of the world from the "public" domes.

Expensive though it is, Alhambra has never wanted for visitors since it opened its domes to pleasure-seekers. Even during wartime, Alhambra has never closed its domes — indeed, it is then that it has been in most demand as an R&R spot. A long-term terraforming project is in progress on Alhambra; within a few hundred years, it may be possible to tear the domes down and walk free on a garden world.

The Asteroids

Alhambra has two asteroid belts. Neither one, as far as it's known, has anything of unusual value, but miners came to the system after the Pleasure Planet opened for business. If nothing else, at least they can spend all their money without leaving the system. The Consortium welcomes the miners, though they're encouraged to spend their time in Miner's Rest, which caters to their particular pleasures and vices, rather than the domes patronized by family vacationers or the million-credit crowd.

Al-Jebel (Mecca III) Prohibited

This inhospitable world, very hot and with little surface water, was colonized by a neo-Moslem sect. Their descendants still eke out an existence on the harsh world, neither needing nor wanting offworld contact. The tribal/clan structure of the planet's loose government is more than sufficient for its small population. Every 10 planetary years, the tribes gather to elect their overall ruler, the Sheik of Al-Jebel, from among their own tribal sheiks. The Sheik rules from Irem, one of the world's two cities.

Al-Jebel wants no foreign influence, and the Patrol helps enforce this. In return, the Sheik gave up a huge area of worthless desert for a Patrol base and high-security prison facility located on the planet's equator, far from the inhabited areas near the small polar caps. The prison holds offenders against interstellar law, as well as dangerous criminals who have escaped repeatedly from other prisons. Because of the harshness of the planet and the fact that the only starport is in Patrol hands, Al-Jebel Prison is considered as close to escape-proof as a prison can be.

Nightmare (Mecca II) — Prohibited

This hostile terrestrial world, sharing Al-Jebel's system, is of interest only because orbital energy readings show several operational Precursor sites. However, the few expeditions that have attempted landings in the past have died to a man.

Hazardous conditions include deadly atmosphere under high pressure; very strong winds with zero visibility; and, of course, the heat and high gravity. The native life is very active and aggressive (dense jungle near the Precursor energy readings; life metabolizes chlorine; no details yet known). Survey continues to research ways to explore these sites, possibly with military assistance. A Patrol orbital watch maintains the Prohibited status.

Badlands (Blazon Ib) Prohibited

The hellhole known as Badlands is a gigantic moon circling in a distant orbit around the only planet in the Blazon system, a massive gas giant named Gojira. Badlands is about as hostile as a world can get and still be (nominally) habitable. The heat from its blue giant primary, plus that from the turbulent gas giant it circles, makes Badlands hellishly hot--barely within tolerable limits for humans. Coupled with its thick, corrosive atmosphere and boiling nitric acid seas, Badlands is hardly the type of world anyone would wish to claim, much less settle.

But Badlands is adequate for what it has become: a free sanctuary world--a no man's land among the stars. Passed up by the early waves of colonists and cast aside by Survey as worthless, Badlands was secretly explored by representatives of the Organization. The planet's very worthlessness made it ideal for what the Organization had in mind. Surreptitiously, the criminal combine established a base there, expanding it and fortifying it against the corrosive acid rains that washed the planet. It was easy enough to do this in secret...nobody had any interest in the Blazon system at all! Then they let it be known through their underground channels that here, on Badlands, was a sanctuary for all those who were "too hot" to remain in civilized space. For a price, they could find a hidey-hole on Badlands.

By the time the Patrol learned of the existence of the Badlands sanctuary, it was too firmly established to be easily rooted out. In addition to its fugitive population, Badlands had become a home base for several of the pirate fleets operating along the frontiers. Badlands enjoys a thriving black market trade as well, and many banned or highly-taxed goods change hands here. The Organization has set up a private, independent defense fleet for Badlands as well — to keep out "undesirables" such as the Patrol and other lawmen, and to keep any of the pirate fleets from getting too greedy. The cost to raid the system became too high for the Patrol to easily pay.

Though it is a hellworld by human terms, Badlands has abundant life everywhere except the equatorial regions. A bonus for the Organization was the discovery of the Killean plant, a creeping, insidious weed named after its discoverer — and first victim. The plant is deadly poison, but can be refined into the addictive "Kill- Krazy" drug — see below.

Now, criminals, terrorists, political refugees and other undesirables from across the entire frontier can find safe refuge from the law on Badlands. This makes the domes and underground cities of Badlands, clustered around its single starport, as dangerous as the environment outside. Even the most hardened bounty hunters generally refuse to pursue their prey to the surface — and few who do ever return. Even the Summersun mercenaries have twice refused lucrative contracts to raid domes on Badlands.

What little "law and order" exists on Badlands comes from the misnamed Peace Committee, an oligarchy consisting mainly of the most ruthless, powerful fugitives on the world. Generally, anything goes on Badlands, but the Peace Committee sees to it that major disputes are settled quickly and efficiently so that they and their personal followers aren't disturbed. The Peace Committee's enforcement squads are recruited from deserters and cashiered military officers . . . but proven skill is required; no dockyard scum need apply! Crossing the Peace Committee on Badlands is the easiest way to commit suicide on the planet — short of walking outside without an armored vacc suit.

Kill-Krazy drug

This is a refined form of the toxin from the Killean plant. Taken internally, it is a hallucinogen in small amounts and a deadly poison in larger amounts. MI vs. HI to avoid addiction after a single dose. If the first dose doesn't addict, each later dose (no matter how long between doses) gives a cumulative -2 penalty to the roll to avoid addiction.

A K-K user sees intense hallucinations which last (20-HT) hours, with a minimum of 6 hours. A user has the Berserk disadvantage, at a -3 to any roll to avoid berserking, during the time the hallucinations persist. Oddly, these hallucinations are in black-and-white; a K-K user is color blind for (40-HT) hours after each dose.

One dose of K-K (a very small amount) costs \$100 most places (but only \$30 on Badlands) and is enough to cause hallucinations. If more doses are taken, the user automatically takes 2 dice of damage per extra dose, or 1 die per extra dose if a HT roll is made. If the victim survives, the drug effects persist for the

cumulative time appropriate for all doses taken. All doses taken within 24 hours of the last dose count as if taken at once!

An addiction to K-K is a -30 point disadvantage; the drug is "totally addictive," giving a -10 on all withdrawal rolls.

Bannar (Kastle's Star I)

The planet Bannar was settled by a mixed lot of colonists, all fleeing religious persecution. They established a colony in which all would be free to follow their own beliefs...or so they hoped. But among the original colonists was a group led by a charismatic teacher named Roq Bannar. With his magnetic personality, Bannar soon converted nearly everyone there to his beliefs, which he called, modestly, Bannarism. Bannar was soon accepted as planetary leader, and "allowed" the planet and its primary to be renamed after him. Shortly thereafter, Bannarism was named the official planetary religion by a unanimous popular vote.

Once in control, Bannar opened the world up to other religious refugees--provided they converted to Bannarism. Since the Bannarite creed emphasized the acquisition of material wealth, Bannarism proved quite easy to accept, and the population and economy grew steadily. By the time of his death, Bannar found himself the leader of a world well on its way to technological dominance among its neighbors.

Bannar's followers soon elevated their Prophet to the status of a god, and his 21-volume Principles, the compilation of which occupied much of the prophet's later years, became Holy Writ. The Bannarite priests dutifully carried out Bannar's last wishes — to carry his faith to other worlds. Again, the Bannarite tenets of material wealth gained many followers, and the theocratic world gained much influence.

The only threat to the rule of the Bannarite priests since the religion's founding occurred a few years after Bannar's "ascension to the celestial throne." Another religious "refugee" came to Bannar: a mysterious bearded man with flowing robes and an oddly carved staff--a mystic figure in total contrast with the materialism of the Bannarite priests. He gave his name as Jayar Drayhoah.

While claiming to embrace Bannarism, it soon became apparent that the newcomer was instead teaching--and converting Bannarites in unprecedented numbers to--a different, mystical faith based on an invisible, intangible god he called "Drayhoah," after whom he claimed to have taken his own name in homage. By order of the Bannarite priesthood, Jayar was imprisoned and sentenced to death. The new prophet somehow managed to escape, however, and with his followers (who claimed the escape was by divine intervention), left the planet. The Bannarites thought that was the end of their problem. They were wrong.

Drayhoah had found another world, where he met more success (see Drayhoah, p. 28). Soon his own religion was also seeking converts among the stars. In recent years, the Bannarites have found themselves in a struggle for converts with the Drayhoans, who are now their major religious rivals. This conflict for men's minds — or souls — has engendered a bitter rivalry between the two religious disciplines, which has recently degenerated to a state of semi-jihad, as each struggles for supremacy. Because of this hostility between Bannarites and Drayhoans, and the zeal with which both seek converts, both worlds can be dangerous for visitors. And on neither planet is it safe to admit having visited the other.

In the meantime, the Bannarites continue their planning and working, doing their best to grow rich to please their god. They have had many real achievements, including the orbiting of a huge solar mirror which — over seventy years — melted the northern icecap and added greatly to the fertile area of the planet.

Bollux (Canaris II)

Bollux was colonized, not because it is an especially desirable planet, but because its location between other worlds made it an obvious (if not necessary) stopping point. It is now the primary center for business and commerce in the Old Frontiers and surrounding areas. As such, the planet houses the main corporate or regional offices for many of the major shipping lines and other concerns, including such firms as Lomax Lines, DeMeriville Industries, Ltd., and Tri-Tachyon. Bollux is the chief port for exports and imports to and from independent worlds toward Galactic North.

Bollux is an old planet, with thin air and little water; its remaining seas are small and very salty. Except near the seas, much of the world is desert. Unfortunately, the seas are located near the equator, where the planet is hottest. Most of the population lives in or near the capital, Justin, near the starport and the corporate offices. Elsewhere, Bollux is mostly uninhabited.

Because the planet was colonized to serve as a shipping and corporate center, the government of Bollux is run by a Board of Directors chosen by corporate concerns headquartered there. Industrial espionage is a constant threat on Bollux, and corporate security is tight. Planetary police and security is maintained by a separate corporation, Bollux Security Inc., owned and controlled by the major corporations there.

The bazaars of Justin are the most varied in the sector. Here may be found goods of all types, in surroundings ranging from open-air flea markets to ultratech shopping malls and office towers. This is also an excellent place to find bargains in goods of all kinds which were damaged, abandoned, or confiscated for nonpayment of shipping charges.

Many find Justin's Star Town, surrounding the starport, an excellent place for R&R; there is almost no law enforcement, and money talks loudly. Rolls to contact the Organization, or to hire free-lance "specialists," are at +2 here.

A Mydar Mining Corporation operation is now "mining" the unusual formations recently discovered on the floor of the shallow sea near Justin — huge globular deposits left by millions of years of mineral concentration as the seas evaporated. Most of the work is done by remotecontrolled robot collectors supervised by a team led by Jawn Mydar, son of the corporation's chief executive officer and largest stockholder.

Byte (Omega V)

Byte is a desert world with only one industry: computing. The world is owned by the BYTE Corporation, a major computing and information company, and almost all permanent inhabitants are employees. The planet Byte is one of the major information centers in the known universe.

All facilities on the planet are underground, because of the hostile nature of the world's surface. Indeed, that is one reason Byte was selected; it's much easier to keep total control of a planet where no one can live without artificial aid.

The only real city on the planet is Byte Central. It is a manufacturing facility for BYTE's computer systems--not the cases and peripherals, which can be built anywhere, but the secret ultra-tech "brains" of the system. BYTE employees are well-paid, but most contracts run for a minimum of three years, during which the employee cannot leave the planet. Many jobs require a mindwipe afterwards to protect corporate secrets!

Byteport is located a hundred miles away from Byte Central, for safety and security reasons. It is a large facility, underground like everything else on the planet. Byte Central is only 30 minutes away by tubetrain. Like everything else on the planet, the ride costs money: \$10 per person one-way, \$40/ton for freight. Indeed, not even air is free on Byte, since it has to be imported. There is a \$100 per week "air tax," payable in advance, and those who can't pay are escorted to the surface. Very few people are actually forced out the airlock...most of them agree to take whatever hazardous job BYTE needs doing that day. Often it's still a death sentence.

Byte Central has entertainment facilities for visitors and employees. They are excellent (anything can be had, for a price) but expensive.

The other business of BYTE, and the planet Byte, is information. Most of Byte's huge data banks are available to any visitor...for a price. All data-processing and connect time fees on this world are 20 times those listed in GURPS Space (p. 38). But research conducted with these databanks is at a +5 to all rolls. The boast of Byte is that "if it's known, we know it." All hotel rooms, restaurants and even freshers have computer terminals from which data may be accessed. Certain questions of a sensitive nature, however, require proper security clearances. Anyone asking questions about Byte itself may, in turn, be asked questions by Corporate Security. And there are other subjects BYTE has been well-paid to keep secret. Its so-called "Swiss accounts" are databases that even BYTE itself cannot (so it says) access. The central computer constantly searches incoming information for correlations to this secret material and adds it to

the Swiss database, and then--theoretically--forgets that it did so. Thus, the owner of a Swiss database can monitor the galactic stream of data for information bearing on his most secret projects, without revealing anything.

Ordinary research on Byte requires no computer skill--just the ability to ask intelligent questions. The databanks are coordinated by an artificial intelligence, called "The Librarian," which appears to have an effective IQ of 14 or so, and a helpful, friendly personality. The question of whether the Librarian is itself sentient is one BYTE won't answer.

But sentient computers are strictly forbidden on Byte, as a "security measure." Any found on the planet are confiscated. This has led to more than one diplomatic incident, when a sentient computer that was a citizen of another planet disappeared on Byte--but Corporate Security has always held firm, and no trespassing AI has ever been seen again.

It would take extremely high skills in both Computer Programming and Electronics (Computer) skills to have even a chance of breaking into a Byte computer or avoiding payment--all rolls would be at -10! This is, no doubt, one reason why AIs are forbidden on Byte.

Because of the sensitive nature of much of the data stored in the Byte computers, the planet is ringed by a system of special defensive satellites designed to repel unauthorized intruders. Military and/or Patrol vessels are usually in orbit, and a contingent of Summersun mercs (see p. 54) guards the ground accesses to Byte Central and other facilities. Byte's own Corporate Security acts as the planetary police.

Visitors who have information to sell can often make quite a tidy sum on Byte, provided they don't stay long enough to spend it in the computers or on other high-priced amenities. Byte has a reputation for paying very fair prices for information received, and for keeping confidentiality about questions asked by its clients. Trade-offs of information for computer time can easily be arranged.

Carcosa (Styx I) Prohibited

Carcosa is a cold, dead world circling at the rim of what was once a solar system. Eons ago, the star went supernova, annihilating all its planets except Carcosa. Though it is now a barren rockball, there is evidence that Carcosa once was a terrestrial planet with an atmosphere and seas, all of which boiled away when the star exploded. Certainly there was life of some sort on Carcosa, as evidenced by the empty, cyclopean cities that still stand on its fused plains.

These structures, mute testimony to a Carcosan civilization millions of years ago, are constructed of gigantic blocks of stone, leading some xenoarcheologists to suggest that their builders had reached no higher than TL2 at the time they were destroyed. Others argue for a higher level; how, they contend, could a primitive culture have built the thousand-foot spires that crown many of the dead cities?

And some point to Carcosa's huge elliptical orbit, 30 degrees off the star's plane of rotation, as evidence that the world doesn't belong to this system at all. Perhaps Carcosa had been dead and wandering through space for millions or billions of years before it was captured by the star which later seared it.

Studies of Carcosa have been discouraged by the other dangers of the system (see below). Most of the sector's researchers believe that whatever the truth about Carcosa might be, it was lost in the flare of the supernova and the dust of the eons that followed . . . and that there are better and safer things to study, closer to home.

Old Irregular

Carcosa's sun, Styx (or Pulsar PSX113A, as it is listed on Survey charts) is unique in that it is the only irregular pulsar ever discovered. It is this characteristic that gives it its popular name, Old Irregular. It is not yet understood why or how this dim ember of a neutron star emits pulses at irregular intervals, when all other known pulsars are regular as clocks. The hazardous conditions within the nebula have thus far made scientific studies in the area unfeasible.

The Deerstalker Nebula that fills the space around Old Irregular was named because its appearance from certain angles roughly resembles the old Terran flapped cloth cap of that name that was worn by hunters in the 19th and 20th centuries. The nebula itself is a "dark" one, invisible at distances greater than a

dozen parsecs except by sophisticated instruments. Within that range, it appears as a black shape against the void. The nebula itself is some 2,000 AU in diameter, extending an average of 400 AU past Carcosa's orbit.

The nebula, and thus the entire system, has been declared a Prohibited zone. The ionized dust and gases within the nebula interfere with sensor readings, making navigation nearly impossible. Even Survey vessels equipped with the most sophisticated sensors have disappeared in the nebula. Some may have ventured too close to the neutron star at the center of the system. Others may have attempted FTL travel within the nebula; experience has proved this to be a mistake that can have fatal consequences.

Carcosa, and, indeed, the entire Deerstalker nebula area, is a favorite rendezvous for smugglers and pirates, who can transfer goods and prisoners without interference in the areas along the fringes of the nebula. The presence of such space-scum makes the area even more dangerous.

Carstairs (Torres IV)

The original colonists on Carstairs were farmers and ranchers, escaping from overcrowded inner worlds. To this day, Carstairs remains a planet of rangeland. Carstairs' southern hemisphere has most of its water; the south is cold but thriving grassland, while most of the north is barren desert, badlands and mountain. As a result, the south is thoroughly, though sparsely, settled, and dotted with small cities and towns.

Carstairs has no planetary government as such. The Carstairs Defense Force, or CDF, is paid for by a 2% "voluntary" levy on income from sales of agricultural products offplanet. It operates a spacewatch with a small but well-equipped normal-space navy. Being purely for planetary defense, it has no starships. The CDF also has a very modern ground force of about 3,000 troops, which does not intervene in local disagreements unless forbidden weapons (see below) are used.

The society is essentially feudal; large ranchowners and townmasters protect smaller ones, in exchange for cooperation and (sometimes) taxes. At any given time, there are a halfdozen small wars going on over grazing rights, water rights, or accusations of rustling. Nuclear and antimatter weapons are not permitted in these brawls — the CDF has the only nukes on the planet — and chemical and biological weaponry that might damage the rangeland is also strictly forbidden.

The agreement that set up the CDF also prevents any Carstairs ranchers from hiring offplanet mercenary units, for fear they'd take over the planet . . . but individual adventurers are welcome to sign up to fight. On occasion, seasoned mercenary units have been brought in a few men at a time. This can win a war when it works, but tends to make its users very unpopular. More often, talented captains are hired, to do the best they can with a motley assortment of thrill-seekers, gunsels, and dregs from Carstairs Startown.

Carstairs exports grain and frozen meat (neobeef and moa) in large quantities. It imports agricultural equipment, as well as quite a bit of weaponry.

A few Precursor ruins have been discovered on Carstairs, but these have amounted to little more than barren building remains. Initial reports of a working Precursor installation were apparently false.

Carstairs Ranch Animals

Neobeef

ST: 60-80 Speed/Dodge: 10/5 Size: 6 DX: 9 PD/DR: 1/2 Wt: 2-3 tons IQ: 4 Damage: 2 impit Origin: SF HT: 14-16 Reach: C, 1 Habitat: P

Just a very big cow, mutated for extra beef production and increased gravity. Since they were originally bred on New New Texas, where predators are dinosaur-sized, neobeef are mean. Carstairs has no native predators larger than a house cat, but most of the ranchers have made no attempt to breed the bad temper out of the neobeef; as it stands, they will charge anything they see, and rustlers need heavy weapons or armored vehicles.

Beef are found in family groups of (2 dice) adults, plus (1 die) half-sized calves. Damage given is for the horns; anyone trampled by an adult neobeef takes 2 dice crushing damage.

Moa

ST: 40-50 Speed/Dodge: 12/6 Size: 1 DX: 12 PD/DR: 1/1 Weight: 800-1,000 lbs. IQ: 3 Damage: 2 cr
Origin: SF HT: 14/24-32 Reach: C, 1 Habitat: P, D

A redevelopment of a prehistoric Earth creature. The moa is a huge flightless bird. It is omnivorous; it eats all sorts of soft vegetable matter, and any small animals it can catch, and turns it very efficiently into lots of white meat. They behave a lot like gigantic chickens (they can be trained to come to food, and scatter madly when frightened). However, they are also likely to attack anyone approaching a nest.

Moa wander singly or in small flocks. The beak and claws are both blunt; either does 2 dice crushing damage. Moas do best on the plains, but a tougher, rangier breed is being developed that can live in badlands or desert. If this succeeds, it will be the largest meat animal that can do well, even in small numbers, in such worthless terrain.

Cretaceous (Braggi II)

Cretaceous is a young planet, geologically unstable. Much of its surface is covered by jungles and forests similar to those of Terra during its Cretaceous Era millions of years ago — hence the name. The widespread volcanic activity on Cretaceous, especially on its as yet unsettled and unexplored equatorial continent, has polluted the atmosphere with ash and sulfurous vapors, giving the air a "rotten-egg" smell. The atmosphere causes respiratory ailments to those who spend too much time here without a filter mask — see below.

Cretaceous has only been seriously colonized in recent years, since the discovery of extensive deposits of fossil fuels beneath its surface. DeMeriville Industries, Ltd., has been granted exclusive rights to exploit the world's mineral wealth. Prior to the oil discovery, the world's population consisted primarily of the xenobiologists at the Escott Institute's research center and a small group of hunter/guides who made their living by running safaris for those who wanted to bag one of the planet's pseudosaurians. There is little in the way of planetary government, and some of the old-timers — who like it that way — fear that DeMeriville will end up owning the planet. Or, perhaps worse, that the large "visitor tax" DeMeriville pays will give the existing government enough of a budget to become a nuisance!

Both starports and settlements are located on the smaller of Cretaceous' two major continents. The larger has not yet been explored, except for a single expedition that, save for one guide, never returned. The survivor brought back wild stories of a primitive saurian race, but no photographs or other evidence, and his tale is not generally believed. Still, little is known about the larger continent, as the volcanic clouds hide much of its surface from detailed orbital photography, and large deposits of radioactive ores seem to interfere with most sensor readings as well.

Filter Masks

For safety, anyone on Cretaceous should wear a filter mask against the ash and sulfides. A Cretaceous filter is not long-lasting, but it is cheap; \$10 for a week's protection. Those who go without a mask suffer no immediate ill effects, but must roll vs. HT +1 at the end of every week. A failed roll means loss of 1 HT from lung damage, which cannot be regained until the victim gets medical care in a clean atmosphere. TL10 medical care can cure 1 HT of this harm in one day; regular first aid won't work.

Generally, nobody is in danger unless they are trapped in the jungle for a long time . . . and in that case, they will have bigger worries.

Native Wildlife

The largest creatures on Cretaceous are the giant dinosaurlike creatures called pseudosaurians. These creatures greatly resemble reconstructions of ancient Terran dinosaurs. Several xenozoologists have pointed to them as proof of the theory of parallel evolution, while others have claimed the pseudosaurians actually are descendants of extinct Terran dinosaurs brought here eons ago by the Precursors. The champions of the latter theory point to the other native life found on Cretaceous. With the exception of the various pseudosaurians, all these are five- or ten-limbed.

The pseudosaurians are common around human settlements, and show no fear of man. Therefore, almost everyone on Cretaceous carries a heavy weapon when outside settlement walls. Citizens here can own weapons that are restricted to the army on most planets.

Pseudosaurus loricata (Annosaur)

ST: 80-100 Speed/Dodge: 10/7 Size: 12 + DX: 15 PD/DR: 4/3 Wt: 3-4 tons IQ: 4 Damage: 4+2 imp Origin: Pre/SF HT: 14-16 Reach: C, 1, 2 Habitat: F, P

Similar to a small tyrannosaurus with armor plate, the Armorsaur is neither the biggest nor the meanest of Cretaceous' fauna. But it the best-known; it is fast, hard to kill, and quite terrifying enough for most hunters, with its six-inch teeth.

Gasser

ST: 12-20 Speed/Dodge: 2*/8 Size: 1 DX: 16 PD/DR: 2/1 Wt: 80 lbs IQ: 3 Damage: 2 cut Origin: SF HT: 12/25 Reach: C, 1 Habitat: F

This is a particularly nasty jungle creature, nothing like any known dinosaur. The "Gasser" is a ten-limbed, spined floater which inflates itself with gas and emits it explosively, falling atop a victim. A Vision-3 roll is necessary to see it hanging in the jungle dimness — or a DX-5 roll will hurl a potential victim to the side when the tell-tale explosion of gas is heard. (Of course, if you weren't under it before, you may jump right in the way.) The Gasser's Move is 2 when inflated, 3 on the ground. It grabs its victim with nine legs and attacks with a single specialized saber-limb. It is generally necessary to hack a Gasser to bits to kill it.

If the Gasser misses its attack, it will climb a tree and perch on a branch for several hours until it can re-inflate its gasbag. The creatures have been known to jump off a branch rather than use their gasbags — a quieter but less accurate attack (DX-3 to dodge if the person was paying attention, but no chance to dodge otherwise, because there is no warning sound.)

Drayhoah (Light I)

The planet now known as Drayhoah, in the system now known as Light, was originally known as Theron, circling the star Barnnetta. Both names were changed after a religious reformation. Almost overnight the world was transformed into a theocratic state that recognized only one religion — that of the mystic warrior-priest Jayar, who took the name of his revealed god, becoming Jayar Drayhoah.

Following his exile/escape from Bannar (see p. 16), Drayhoah and his followers settled on Theron, where he began to teach his mystic faith. Within a decade, the entire population of the planet had either converted to Drayhoahism or had emigrated. Several theories have been advanced to account for the Drayhoah phenomenon. One is that Drayhoah was a powerful psionic talent who cloaked his activities under the guise of religion. Another is that his strange staff, which he claimed was a gift from his god, is actually a technological device that enabled him to bend minds to his will.

In the following 60 years, the Drayhoans have continued to do their best to export their faith to other planets. They actively compete with the Bannarites, with a degree of success that has astonished both theologians and politicians.

The current prophet of the religion claims to be the original Jayar Drayhoah (highly unlikely, considering the faith's ban on anti-agathics and other artificial methods of life-extension). Members of the cult believe this completely, and have been known to become violent if "blasphemers" disagree.

Warning: In general, visitors should avoid religious discussion of any type while on Drayhoah, listening politely and saying nothing. Permanent residents of Drayhoah are required to belong to the faith. Visitors have "freedom of religion," in that they are not required to convert, but must not commit blasphemy. This includes any public display of non-Drayhoan religious symbols, swearing by any god whatsoever, or — very definitely — any advocacy of any religion except that of Drayhoah. The legal punishment for blasphemy is mindwipe. For a small blasphemy, a large donation, discreetly made, will erase the offense. But some offenders never reach the jail; they are torn to pieces first.

The planet Drayhoah itself is Earthlike but warmer, with a large population and a well-balanced economy. Some areas on the three largest continents are almost completely urbanized, and all arable land on the world has been brought under cultivation.

Drayhoah natives wear cloaks and robes outdoors to protect themselves from the sun. Martial arts are very popular, and are taught in the schools. As part of the Drayhoan reverence for life, almost everyone keeps pets. Hunting is prohibited, and some large and dangerous "game" animals are tamed and kept as watch-beasts. However, the culture is not regressive; high technology is prized, and computers are everywhere.

Dunsel (Gules I) Restricted

The planet Dunsel, a damp, forested world, was originally settled by a group of neo-Luddites who firmly believed that higher technology was the root of all mankind's evils. Upon landing, the colonists immediately blew up their ship, then destroyed all vestiges of any technological item or teachings higher than TL3. They then settled down to live a medieval, back-to-basics lifestyle, shunning contact from other worlds. Only one continent is inhabited, as far as anyone knows; the original colonists kept nothing which would have let them cross oceans.

Dunsel did not join the stellar community willingly; it simply had no choice, as trade and travel in the sector became more active. The clan chiefs bowed to necessity and permitted construction of a starport under the condition that the spacers recognize their authority and help preserve their way of life. Outside the starport, possession of any technology higher than TL3 remains illegal.

But Dunsel changed forever when its loose government allowed religious missionaries from Bannar to teach on the planet--provided they did so using TL3 methods only. The materialistic Bannarite religion held an odd appeal for those latter-generation Dunsels, who'd never known anything better than a harsh medieval existence. Within a few decades, most of the Dunsel clans near the starport had accepted the Bannarite religion, and happily installed the Bannarite priests as their new leaders.

Meanwhile, clan leaders farther away from the starport, seeing the results of Bannarite teachings, closed the door to the missionaries. Dunsel became a battleground. Officially, the conflict is purely internal, clan versus clan. Unofficially, hundreds (if not thousands) of "volunteers" from Bannar itself are swelling the Bannarite ranks on Dunsel. It is an open secret that Bannar plans to conquer Dunsel entirely. But to do so, it will have to take control of enough clans to officially change the Starport Agreement.

However, under the agreement by which trade with Dunsel was opened, the prohibition against technology higher than TL3 remains. And, under pressure from Bannar's interstellar rivals, that prohibition has been enforced. Thus, the slow war for Dunsel is fought with swords and axes. There are many groups elsewhere who would be happy to help the traditionalists resist the Bannarites...but the traditionalists won't use modern weapons, don't need money, and don't really like any offworlders.

The two types of Dunsel clansmen can easily be distinguished. Old-line Dunsels dress in heavy cloth of forest colors, with bone ornaments. Bannarite clansmen dress in the same materials, but their clothing is brightly-colored, and cut in imitation of modern styles; they wear ornamentation of whatever metal or electronic scraps they have been able to pick up. The Bannarite tribesmen, encouraged by their priests, are working for the day when the blessings of high technology will come to their world. The traditionalists are equally vehement in their desire to cleanse their planet of alien thought and return to the purity of their fathers. Both sides are fanatics. The Summersun mercenary squad that guards the small starport have standing orders not to allow visitors to leave the starport with any item of TL4 or higher technology and to warn any visitors to the world that, should they break any religious taboos on Dunsel, they are on their own.

Gith (Stronti I) Restricted

Gith is a cold, hostile world, one of only two in the Stronti system. The planet itself is unremarkable, except as a base for scientific research into the system itself. The only settlements on Gith are two scientific research stations, one manned and run by Survey, the other a private research facility operated by the Escott Institute. The Institute, as the employer of the entire civilian population, is the nominal "government" of the planet.

What makes the Stronti system the subject of intense scientific research are the numerous "gravitational anomalies" orbiting the sun and planets. These are point sources of intense gravitational waves. Several orbit the star Stronti; each "empty" orbit, up to #9, has one anomaly. And several orbit outside the plane of the ecliptic at varying--and shifting--angles of inclination.

There are also anomalies in orbit around the system's two worlds — five around Gith and three around the gas giant Fodor--and six in the asteroid belt.

Although in some ways consistent with the theoretical properties of quantum black holes, the anomalies differ greatly in others. The orbital positions of the anomalies seem to change irregularly, as do the intensities of their gravitational fields. This makes navigation through the Stronti system difficult, and sometimes extremely hazardous.

The five gravitational anomalies in orbit around Gith cause fluctuations both in the planet's rotational period and in its axial tilt. The former varies from as little as nine hours to as much as 72 hours, the latter from 10-80 degrees. As a result, conditions on the planet can be quite unstable. What little atmosphere Gith has is usually violently agitated, and earthquakes are common; the two research stations are located on comparatively stable geological zones. Ice caps have not formed. What little water Gith retains slops violently around in the ocean basins, agitated by choppy tides and the irregular motions of the planet itself.

The six anomalies in the asteroid belt, unlike the others in the system, do not fluctuate in strength. The composition and orbits of the asteroids themselves are more consistent with a destroyed world than with a world that simply failed to form, and most researchers in the Stronti system feel that there was indeed a world there until it was torn apart by the anomalies that now orbit in the belt. However, this fails to explain why those six anomalies, alone in the system, behave "normally."

The three anomalies around Fodor, the system's gas giant, seem to have little effect on that world, except for increasing the severity of storms in its thick atmosphere.

Many theories exist to explain these anomalies--none acceptable to the entire scientific community. The two most prominent are that the anomalies are indeed a form of miniature black hole, or that they are artificial--some sort of Precursor artifact of unknown purpose. One variant on the latter theme is that the anomalies are some type of stargate. According to this theory, the changes in intensity of the anomalies signal changes in their destinations. So far, no confirmation of this or any other theory has been possible; probes sent in close enough to study the anomalies have all been destroyed before gathering much useful data--destroyed or sucked through to somewhere else, if the "Precursor stargate" theory is correct.

The entire system has been rated a Restricted zone. The Patrol maintains an emergency station in the system's asteroid belt, the "calmest" region within the entire system.

Hali (Korinna I)

Hali and its sister planet Hamish make up a double world. Hali is the larger of the two planets, but far less hospitable. The system's government, and the majority of its population, is located on Hamish (see next entry).

Hali is a cold, hostile world that nevertheless is very valuable, thanks to its deposits of organic material and several rare minerals, including metallic lithium. Most of the population lives underground, in artificially constructed caverns. These caverns have been expanded many times in the past few hundred years to accommodate Hali's growing population.

The surface of Hali itself is treacherous because of fierce storms that spring up almost out of nowhere. The planet has no surface water; it is all locked up in ice. A long-term terraforming project is under way,

but so far only a small area around Haliport, the capital city, has vegetation. Hali's air is breathable with a filter and respirator; filter cartridges (to remove the sulfur compounds) cost \$20 and last a month.

The tidal effects of the double-planet system affect Hali greatly. Vulcanism is common. The living areas have to be wellconstructed, because they are shaken daily by earthquakes.

On the whole, the planet is an uncomfortable place to live. Even so, Hali's mineral wealth continues to attract immigrants, causing even more overcrowding and expansion of the underground habitats. Any job on Hali will pay at least 50% over standard rates, but living conditions are crowded and uncomfortable, and most mining work is dangerous. And when an especially bad quake collapses a tunnel, everyone is in danger.

Hali-Hamish Shuttle

A large fleet of interplanetary shuttles make the Hali- Hamish run. At 1-G acceleration, a ship can make the .05-AU trip either way in 16 hours. Most shuttles are slower, though, making the trip in about a local day.

The Kisumu Class Heavy Shuttle is typical of the large interplanetary merchantmen that make the run between Hali and Hamish. It is built from standard plans in widespread use throughout the sector. The interplanetary equivalent of a passenger/ freight train, a Kisumu carries 300 passengers in small berths, and can stow 500 tons of cargo in its 1,000-cy hold.

A Kisumu is 10 yards wide, 10 yards high and over 90 yards long, with a wingspan of 75 yards. The ship is built with a TL9 hull and fusion plant, for economy, but its thrusters are up-to-date, boosting the ship at .33 G loaded or .50 G light. Two large airlocks admit passengers while the ship is at dock; there are two one-man maintenance airlocks for crew service, and two more one-man locks for access to the cargo bay. The bay doors swing open for loading, requiring the entire cargo deck to depressurize. The ship is braced for 1 G, by default, and has heavy compartmentalization, by safety regulations.

In addition to the 300 passengers, the ship carries a 20-man crew: a captain, an executive officer, two pilots, seven engineers, one medical officer, and eight stewards. The living and work areas have artificial gravity, but the rest of the ship, including the cargo bay and most of the engine rooms, does not. The full life-support recycling system has a rated capacity of 352, a 10% safety margin; the system needs very little maintenance or upkeep, requiring at most a thorough cleaning and recharge every six months.

A Kisumu requires a 7,500-cy boat bay if carried as a larger ship's auxiliary. It masses 1003 tons without passengers or cargo but with crew; it can carry 500 tons of cargo, and its fully loaded mass is 1,527 tons. A Kisumu costs \$18,397,527.

At .33 G, the .05 AU trip from Hali to Hamish takes just under 27 hours. The berths carry four passengers each, in moderate comfort. The trip costs \$150, or \$500 for first class (which includes a private compartment and room service for meals). Each passenger is allowed 250 lbs. and ¼ cy of luggage; every additional luggage space costs \$25.

Though the ship is only rated for a maximum of 500 tons of cargo, there is room in the hold for more than that. The ship will be able to operate safely in the gravity wells of Hali and Hamish with up to 270 extra tons of cargo; when overloaded thus, the ship accelerates at only .28 G. There is no practical limit to the mass on trips between orbits, when the ship is not expected to land.

Hamish (Korinna Ia)

Hamish, the sister world of Hali, was colonized far earlier, since its conditions are fairly Earthlike. Primitive life existed before Hamish was colonized, and the colonists have terraformed the planet further simply by introducing hardy plants and animals from other worlds. The only problem with the local life is a large variety of shelled creatures, somewhat like snails, but secreting a highly toxic compound (see below). These "stingsnails" are important enough in the Hamish ecology that they can't just be exterminated.

Hamish is a considerably denser world than its companion Hali, and has a molten core and a thicker atmosphere, making it far more liveable. Hamish has sizeable deposits of radioactives and heavy metals, complementing the light-metal and organic deposits on Hali; between the two planets, almost any mineral

resource is available. As a result, the system is a wealthy one. Interestingly, the two worlds have the same gravity: .85 G.

Interplanetary Politics

There are political stresses between the sister planets. Wages on Hali are higher...they have to be. So immigrants appear constantly, looking for work in the mines. But as soon as they get work, they join the natives in demanding safer and more comfortable working conditions. The political system of Hali/Hamish is very free, so the workers have a legal right to demonstrate...but the voters on Hamish don't want to spend huge quantities of tax money to make the underground environments of Hali more comfortable. After all, they say, nobody has to live there!

Hamish is no garden world, but it's fairly comfortable. The biggest problem with Hamish, other than the stingsnails, is the huge tides created by its companion; towns and cities are sited well away from the small seas. Earthquakes and volcanism are also common in some areas of the planet, and no place is entirely free from small quakes.

Stingsnails

The Hamish stingsnails make up a large group of mollusclike creatures found throughout the wetter areas of Hamish. They range from tiny to larger than a human head. All are poisonous (blood agents); the severity of the poison ranges from unpleasant itch to quick death. Most snails sting by expelling a single "fang" into the victim; the average species can penetrate clothing of DR 2 or less, but big snails are stronger. A few species can shoot their stings for several yards. These flying stings can penetrate only DR 1 clothing, but they're especially deadly. As a result, outside work in infested areas (especially the tidal basins) is done in body armor, or using sealed vehicles. In particular, the extraction plants that "mine" minerals from the sea depend on remote-controlled grabs and lifters.

Stingsnail

ST: 1-3 DX: 12 IQ: 2 HT: 14/3 Speed/Dodge: <1 PD/DR: 2/1 Damage: ¹ Reach: C Size: <1 Weight: up to 2 lbs. Origin: SF Habitat: any wet area

Immunization against stingsnail poison is available, but it's expensive. A general immunization, giving +3 to any HT rolls made to withstand the venom, costs \$10,000 per person. Specific immunizations, giving complete immunity to individual types of poison, are also available, usually for \$5,000 each. But there are hundreds, if not thousands, of types of snail. The specific immunization is usually only worthwhile for those working in an area where one deadly type is very common.

Lorn (Daleth II)

Once a thriving planet, Lorn was devastated by a war of rebellion some fifty years ago. Many people were killed; the Lorn economy was wrecked, and society crumbled. A further "population implosion" followed. Though the Lornese world government is now functioning once again, much of the planet remain hostile and uncontrolled, and many areas are now empty of human life.

The world is basically a good one; it is slightly warmer than Earth-normal, with no icecaps. Its seas are small; three are saltwater, and two are fresh water. Most of its terrain is rolling plains, with a belt of jungle around most of the equator and large swamps bordering the equatorial coastlines.

A worldwide reclamation effort, directed at pacifying (or wiping out) survivalist bands and rebuilding the wrecked cities, is now under way on Lorn. Although full-scale relief efforts across interstellar distances are impossible, Lorn's neighbors are giving what help they can. The Lornese are also accepting homesteaders to repopulate the abandoned territories. As a result, Lorn's one remaining active starport is a busy place.

But the human survivalists are nowhere near the worst problem Lorn faces. In fact, some "hostile" parts of Lorn are no longer populated by humans at all. They have been wiped out by a plague of voracious, vicious creatures called creeps.

The Creeps

One of the most devastating parts of the original attack on Lorn was the ravenous Organism CRE-3B, or "creeb." This creature was specifically bred as a biological weapon, intended to demoralize an enemy population. Thousands were dropped on Lorn; they quickly multiplied to millions. Like most bioweapons, the creeps had been designed with a weakness. In this particular case, a virus had been tailored to wipe them out when they had done their job. But the virus didn't work; the creeps were on Lorn to stay. In fact, the creeps have full-scale panimmunity; so far, anything that can kill a creeb is a worse menace than the creeb itself.

Creeps are skulking omnivores...large, near-intelligent ratlike creatures whose forepaws are very human hands. Their gray-brown, hairless hide is slick and water-repellent. They have a pathological hatred of human beings, and enjoy manflesh. They just love children.

Creeb

ST: 4-6 Speed/Dodge: 12/6 Size: 1 DX: 12 PD/DR: 1/1 Wt: 40-60 lbs. IQ: 6 Damage: 1 cut Origin: SF HT: 15/8 Reach: C Habitat: any land area

Creeps are rarely found just one at a time; they are usually seen by the dozens. They are cowardly, and will avoid a man with a weapon, melting away into tunnels. Deserted Lornese cities are now honeycombed with their burrows--one reason the cities stay deserted. The swamplands are also heavily infested; creeps can live anywhere than man can, but seem to prefer warm weather.

There are occasional reports, not yet confirmed, of toolusing creeps.

The Lornese government offers a \$5 bounty for creeb tails, and takes great precautions at the starport to keep creeps from getting offworld and infesting other planets.

Nautilus (Gestae I)

Nautilus is a water world with a harsh climate and few areas of dry land. Its fast rotation and its extreme axial tilt make the atmosphere of Nautilus highly unstable, given to violent storms and winds of extremely high velocities. A few small, icecovered islands and the polar caps are its only land areas. This was no problem to the original colonists, most of whom were from Hawaii-cha and other water worlds; they were looking for a planet with rich sea life, and didn't care whether there was any land! Thus, Nautilus' civilization is an entirely submarine one.

Beneath the troubled waves live the people of Nautilus, in domed cities, towns and individual homes. Transportation between these habitats is via submarine vessels, some of which also have space capability (see below). So comfortable is the life in the larger domes that many of the planet's citizens never learn to swim! They're just city-dwellers; that the city is thousands of feet underwater is unimportant. Nautilus domes keep a standard 24-hour Earth day, ignoring the short day and year.

Even one of the world's two small starports is mostly underwater--an impressive engineering feat. The second is an orbital station. Most interstellar traffic to Nautilus uses Highport, as only the most skilled pilots are able to navigate the planet's atmosphere to the "ground" starport, Flurry (-2 to Piloting rolls).

Despite its harsh weather, Nautilus' seas are full of life. Nautilus exports large quantities of luxury seafood, including "fish," crustaceans, and the fruits of several large kelp-like plants. Some smaller marine plants have pharmaceutical value. Nautilus exports a few minerals, notably radium (refined from rich ores found in only one site on the planet--14, a restricted area) and tantalum (extracted from the sea water). Many other metals are extracted or mined in quantities enough for local use. Nautilus has a thriving economy and a growing population.

The Summersun Mercenary Co-op (p. 54) has leased a sizeable area of Nautilus' seabed for use as an underwater training camp. The mere base has its own private starport as well, though this is not open to general traffic. The base is well-protected, and unauthorized visitors are discouraged.

Also of note on Nautilus is a research station where various techniques (both genetic and surgical) are being tested in hopes of producing a truly water-living variety of mankind. Not all the people of Nautilus

support this effort; many of them feel that their underwater domes are the best and most natural way to live, and that water-breathing "humans" would be an abomination. They point to the Deepies of Sinbad (p. 52) as an example of what might happen if aquatic humans were created and decided to take the planet for themselves. As a result, the Aquatic Studies Facility is politically controversial.

Nemo Class Triphibian Shuttle

The Nemo class shuttle is designed for use on and around Nautilus. It can travel from orbit down to sea level, and can cruise 3,000 feet below the ocean at up to 100 miles per hour. As a passenger shuttle, it ferries 135 people between orbit and the underwater domes; its cargo bay can handle 296 tons.

To operate effectively underwater, a Nemo has some special design features. It has total compartmentalization. Furthermore, it is braced to withstand 35 Gs, far more than its drive will ever produce — the hull can handle pressure of up to 1,500 standard atmospheres. Its streamlined hull has special control surfaces for underwater use. Most importantly, the ship has a large ballast tank: When the tank is filled with air, the ship floats, but when the 50-cy tank is filled with water the ship becomes heavier than the surrounding ocean and sinks. To carry it into orbit, a Nemo has thrusters, providing .04 G of acceleration. The thrusters are powered by a TL10 fusion plant. A Nemo is very easy to track when underwater; its thrusters constantly flash water to steam, sending up a trail of bubbles and producing a distinctive hiss.

The ship has a crew of five (two pilots, an engineer and two stewards) and can carry 135 seated passengers. The lifesystem will support a full complement for a single day, with a 10% safety margin; the safety margin can also be used to support the crew on the empty return trip. The ballast tanks act as an additional backup, since when empty they are filled with air. The shuttle has artificial gravity throughout the hull.

A Nemo carries 296.2 tons of cargo. There is no "light mass"--when carrying less than its full complement of passengers and cargo, lead ballast (11 tons per cy) keeps the mass constant. (Without cargo or ballast, the ship would have to maintain constant thrust to stay underwater!)

An oval wing 20 yards wide, 8 long and 3 thick, a Nemo masses 475 tons loaded but with dry ballast tanks. If operating strictly from the surface to orbit, it can be stripped down to 169 tons, allowing .11 G acceleration. A Nemo costs \$3,274,500.

Pleroo (Pneuma/Hagion II)

The Pneuma/Hagion system is a binary with a main sequence G star, Pneuma, as its primary and a red dwarf, Hagion, circling it at 10 AUs. Only two worlds occupy the system, both inside Hagion's orbit. These are Pletho, a huge gas giant named for the Greek expression meaning "filled to overflowing," and Pleroo (pronounced "play-roh-oh"), Greek for "filled to capacity." Pleroo has two moons; the rest of the system consists of miscellaneous space debris.

Pleroo is aptly named, as it is a world filled with life. It is a pastoral world, given over entirely to agriculture, often called the "Breadbasket of the Old Frontiers." The richness of its soil and the extra-long growing seasons and daylight periods that result from the system's second sun make for spectacular crop yields.

Much of the relatively small population is engaged in agriculture, and immigration is limited primarily to those of similar interests. The planetary government strictly regulates mining and manufacturing; although the planet apparently has rich mineral resources, all but the rarest are left unexploited. Though this infuriates some elements of Pleroo society, the Agriculturalist Party retains a clear majority in Parliament. Other than the spaceports necessary to ship Pleroo's bounty offworld (and import the manufactured goods the planet can't and won't make for itself), the planet seems almost undeveloped from space; its nightside shows few city lights. But by day, an orbiting ship can see that most of the world is ordered and cultivated.

This carries over into the planet's social life. The people of Pleroo, like their world, are ordered and cultivated. Crime is very rare, and art and artists are highly appreciated. The folk of Pleroo may be farmers, but they are gentleman farmers, and they feel that their ties with the soil enable them to better understand the finer things in life.

On the other hand, the six starport cities of Pleroo, especially the capital, Cornucopia, are brawling and decadent. But even there, the folk of Pleroo will only tolerate so much. Law enforcement is low-key yet efficient, so in comparison with startowns elsewhere, Pleroo's ports aren't especially dangerous. A careless visitor isn't likely to wake up dead — just drunken and broke. On Pleroo, the choice of entertainment is simple: a quiet evening at the theater, ballet or symphony in your local small city, or a trip to the starport to raise Cain.

Pleroo is also the site of the Escott Institute, the most prestigious center of learning and scientific studies in the Old Frontiers. Originally an economic institute, the school gradually branched out into other areas, particularly the various sciences.

Today, the Institute's main focus is on xenology and planetology, studying the various lifeforms and planetary phenomena in the Old Frontiers, as well as on xenoarchaeology--particularly the Precursors. The Institute also has a fine school of criminology, from which a number of Patrol leaders have graduated. The most acclaimed achievement of the Escott Institute in recent years, however, was the final publication of its 14-gigabyte Escott Encyclopedia of Universal Knowledge, believed to be the most extensive source of general knowledge available in the Old Frontiers, outside of the archives of the planet Byte. A copy of the EEUK (pronounced, unfortunately, e-yuk) sells for \$25,000, and gives +4 to any Research roll on anything to do with this sector.

Quentin (Abercrombie III)

Quentin is a barren, wind-swept waste of shifting sand dunes and creviced rock flats, of little use to anyone until recently. Although initial geological surveys showed the planet to be rich in minerals, these were too difficult to reach to make the effort profitable. The planet's quick rotation and relatively dense atmosphere causes a severe Coriolis effect, with high winds whipping the sand into deadly storms.

There are no records of deliberate colonization of Quentin, but nevertheless there is a large human population. Although they are now desert nomads, their language and culture indicates that their ancestors may have come directly from Old Earth, possibly in a STL colony ship sponsored by the 21st-century nation of Russia. Most of the population lives around the four small fresh-water "seas" near the world's equator, but the deserts support enough plant and animal life that tribes wander all over the planet.

Recent discoveries of rich veins of ore in the R'rona Mountain range have put Quentin on the star map once again. The planet is being courted not only by many of the sector's major mining concerns, but by the religious proselytizing efforts of both the Bannarites and the Drayhoans (see pp. 16, 28). Among the nomadic tribes that make up much of the planet's population, the nonmaterialistic approach of the Drayhoans seems to be gaining a small but significant following. Several of the most influential komisahrs (clan chiefs) have been converted to the Drayhoah creed.

Pressure-Scorps

The highest form of native life is arthropod. Most of these are insignificant, but some grow to great size. The only dangerous ones among the giants are the "pressure-scorps." These huge scorpion-like creatures kill their prey by puncturing it with their huge tail stingers. The pressure-scorps then suck the bodily fluids out through the stinger, gaining both food and moisture. The armored bodies of the creatures themselves are water- and airtight, to avoid the dessicating effects of Quentin's superdry atmosphere (which can totally dehydrate an unprotected human in a few hours). A single large pressure-scorp can be more than a match for a whole nomad tribe.

A pressure-scorp will attack anything that moves, except a hatchling pressure-scorp. They have very keen senses (a Vision roll of 14, Hearing of 12). Their claws can attack to the side or front; their stingers can only attack to the front. Victims impaled by a stinger must roll ST-3 to escape.

Hatchling pressure-scorps cling to the carapace of a larger one (presumably a parent) and scavenge from the leftovers. They will not fight each other, but still attack everything else. There is a 1 in 3 chance that any adult pressure-scorp killed will have 1 to 6 little ones, who will attack the party as soon as the big monster is downed.

Adult Pressure-Scorp

ST: 120 Speed/Dodge: 15/7 Size: 12+ DX: 12 PD/DR: 6/15 Weight: 2-6 tons IQ: 3 Damage: ² Origin: SF HT: 15/65 Reach: 1-4 Habitat: D

Young Pressure-Scorp

ST: 60 Speed/Dodge: 12/6 Size: 6 DX: 13 PD/DR: 5/12 Weight: 1 ton IQ: 3 Damage: ³ Origin: SF HT: 14/30 Reach: 1, 2 Habitat: D

Hatchling Pressure-Scorp

ST: 20 Speed/Dodge: 8/6 Size: 1 DX: 13 PD/DR: 4/8 Weight: 200 lbs. IQ: 3 Damage: ⁴ Origin: SF HT: 12/20 Reach: 1 Habitat: D

Redugun (Torsk I)

This heavily-forested world is very Earthlike except for slightly heavier gravity and very extreme seasons. Its "average" temperature is Earth-normal, but its heat waves are hot and steamy, while it is occasionally cold enough to snow even at the equator. As a result, Redugun furs are luxury items, and one of the world's best-known exports. Many of the mammal-like creatures on Redugun grow extremely large, and the trees of the equatorial regions dwarf Earth's giant sequoias.

The original Redugun colonists adopted a feudal style of government, with themselves on top and subsequent immigrants falling below them on the social scale. Over the centuries since first planetfall, the human population has developed a rigid caste society. Descendants of the original colonists are the feudal "lords" of Redugun, and enjoy the greatest influence and personal freedoms. Highly skilled technicians and scientists rank below the lords, followed by the military and hunters, merchants and, finally, common agricultural laborers and miners.

Thus, Redugun is divided into duchies, counties, and baronies, each with its feudal lord. Local wars are perfectly legal and acceptable under Redugun law, as long as they don't constitute a rebellion against the King or one of his Grand Dukes. And even those would be legal, after the fact, if the rebels won.

But the bottom of the Redugun social ladder is reserved for the world's native race. The Dringels, furry, tailed humanoids, have been virtually enslaved by the human population of the planet. Declared nonintelligent by their discoverers, the Reduguns were captured in droves, then trained as laborers.

Some xenozoologists offplanet have studied the Dringels and claim that they are as intelligent as humans. Redugun scientists ridicule this, pointing out that the Dringels' own "language" contains less than 50 words and that they never learn human tongues at better than a six-year-old level. And the Dringels seem to have no culture of their own; even newly-captured ones gleefully imitate anything they see their human masters do (including human vices like drinking and smoking) and rarely attempt to escape unless brutally treated. This rarely happens; the Reduguns are not cruel, and consider the Dringels a valuable resource.

A "Free-the-Dringels" movement is gaining strength among Redugun's neighbors. It has a little support on Redugun itself, but not much; a few progressive nobles get along without Dringel labor, but they are having trouble competing with their neighbors. Humans have to be paid, and Dringels don't. Worse, a human who is part of the work force isn't available as a soldier, and every local ruler needs troops.

In fact, the Dringels are necessary to the whole planet's economy, at least as it is currently set up. One reason the planet's trade is competitive, even though its tech level is lower than its neighbors', is that slave labor reduces the overhead in the fields and mines!

Roentgen (Irian I) Prohibited

The planet tagged Roentgen by its discoverer was aptly named. Roentgen is a highly radioactive world, though not from natural causes. From orbital and robot surveys of the world, it appears that Roentgen once had a civilization of approximately TL7 that completely destroyed itself in a planetwide thermonuclear war. The blasted ruins of cities can still be observed from orbit. No manned landings have ever been attempted on the planet because of the high levels of radiation that still contaminate the land, seas and even the very air of Roentgen. The climate is also considerably colder than it must have been before the war threw massive amounts of dust into the atmosphere.

From measures of the radiation levels, Roentgen seems to have committed nuclear suicide anywhere from 50 years to a century before the first Survey ships reached it. No sign of living intelligence has ever been detected on Roentgen, nor any animal life larger than insects, several of which robot probes brought back for study. No plant life more advanced than grass and small weeds survives, and many areas of the surface are now entirely desert. Sensor readings of the planet's surface, however, are difficult to obtain due to interference from the high radioactivity.

It is barely possible that intelligent life did survive, perhaps underground or under the seas, though no concrete evidence of this has yet surfaced. On the other hand, recent sensor readings (improving with the slow decrease in radiation levels) and visual sightings have suggested that something may be once again stirring on the surface of Roentgen, though its nature is as yet unknown. The radiation levels have dropped enough since Roentgen's discovery that it may soon be feasible to send manned probes to the planet's surface. In anticipation, both the Survey and the Escott Institute have established orbital research stations off Roentgen to further study the situation. The Survey base on the moon continues to enforce the prohibited status of Roentgen even while preparations are underway for future landings by scientific teams.

Any landing, of course, will require sealed suits with radioactivity protection. Rural areas of Roentgen will now give a visitor from 10 to 20 rads per hour. The cities literally glow; some heavily-dusted sites would expose an unprotected person to well over 500 rads per hour. Air filters will also be needed against fallout; a suitable filter costs \$40 and lasts a week. After that, it starts admitting some fallout....

Sheba (Ashurbanipal II)

Sheba is the closest thing to a classical monarchy in this part of the galaxy. The original colonists were the royal family of the planet Bohemia and their loyalist followers, deposed by a coup on that world. The loyalists, with their backs to the wall, agreed to leave quietly if they were given a well-stocked colony ship. The rebels, relieved to get off without a fight, agreed, and 34,000 people, most in freeze, set off to found a new kingdom.

Sheba, though harsh, was the best unclaimed world the loyalists were aware of within their ship's range. For its first few years, the colony teetered on the brink of survival. Then the discovery of rich deposits of radioactive ores and industrial metals enabled the new Sheban royal family and followers to prosper and tame parts of the world.

Unfortunately, much of the planet was too rough to exploit effectively. The mountains and plateaus that make up the majority of the planet's surface are infertile, and the air is too thin to breathe without a respirator. The polar caps are large, and much of the equatorial region is covered by ocean. Only in two regions of equatorial valleys have the Shebans been able to live unprotected. They farm in the lowlands and live on the mountainsides; the higher up your residence, the higher on the social ladder you are. The Royal Palace is on the highest peak of New Bohemia.

But as the mineral wealth in these areas have begun to run out, the Shebans have started discussing ways to exploit the rest of their world. A massive survey is taking place, and a network of mountaintop stations and small satellites is being established to coordinate the surveying effort and establish a worldwide navigation grid.

Queen Viktorya is also the subject of considerable gossip around the sector, now that she has accepted a marriage proposal from a "commoner" rumored to be a VIP in the Organization. Her future prince, already

elevated by Viktorya to the honorary title of Baron, now makes his residence on Sheba in anticipation of the coming wedding.

Wattiwaddle

Sheba is also known for its highly unusual moon. Dubbed "Wattiwaddle" by the first royal family, after their nickname for an overweight uncle, it is shaped, roughly, like three different-sized spheres squashed together. It tumbles as it orbits, and it is close enough that it rolls across the sky several times each day. Though it appears that it might come crashing into the planet at any moment, Wattiwaddle remains well outside the Roche limit. It will undoubtedly still be orbiting Sheba, after its own fashion, long after man is only a memory on the planet.

Wattiwaddle is known to have considerable deposits of platinum and iridium, but a Royal decree forbids its exploitation. The Royal Sheban Space Force has many times tangled with illegal miners trying to pick up a piece of the little moon.

Sinbad (Briareus I)

Sinbad is one of the most recently colonized worlds in the Old Frontiers. It was only successfully colonized some 50 years ago, after two earlier attempts had failed with the complete disappearance of the colonists.

Tales of the first colony's mysterious vanishing led to rumors that the planet was haunted — a theory reinforced when the second colony group also vanished. Finally, however, a larger, better-armed colony established itself on a different continent, and eventually discovered the cause of the earlier disasters — a race of aquatic humanoids that had remained hidden from the sensor scans of the initial planetary surveys, due to a masking effect caused by the heavy mineral content of the oceans.

These "Deepies" had evidently massacred both colonial parties. To this day, there has been no communication with the Deepies, and the race has not been properly studied (see below). On Sinbad, especially near the oceans, the colonists now travel well-armed and in large groups. And even so, colonists are lost.

Because the presence of the Deepies has seriously curtailed the colony's attempts to exploit the mineral and biological resources of Sinbad's oceans — the main reason for the colony's establishment in the first place — many of the colonists favor treating them as animals and exterminating them. This makes for an explosive situation on the planet between pro- and anti- Deepie camps. The Survey Service has established a Research Station on Sinbad to study the Deepies and attempt to establish communications with them.

The planet itself is mostly covered with water, its only dry surfaces being a series of archipelagoes stretching across its equatorial region, one small continent, and small polar ice caps. Its climate resembles that of Earth's south sea islands, with little climatic variation throughout its year.

Sinbad is governed by a loose bureaucracy, whose main branch is the Office of Oceanic Affairs. Its primary function is to further the world's ability — and right — to exploit the planet's resources. So far, this is limited to mining the oil and other organic mineral beds on the ocean floors near the few inhabited island groups, to filtering metals out of the mineral-rich waters and to harvesting seafood and oceanic algae beds in the offshore farms. A few commercially valuable fish and shellfish have been discovered, but hunting them is dangerous.

The Deepies

The Deepies are not at all well-understood; no one even knows what they call themselves. They appear perfectly adapted for submarine life, but the race is clearly capable of short stretches on land. They remain hostile to humanity, and so far, all attempts to communicate with them have been in vain. Captured Deepies refuse to eat and quickly die. Deepies will react at -6 to any non-Deepies.

Deepies have +2 to ST and HT and +1 to DX. They have the racial advantages of Night Vision, Toughness (1 level), and Acute Hearing underwater (+4). They automatically have Swimming skill at DX +3 and Survival (Underwater) at DX +2. They have the disadvantages of Color Blindness and Mute (for

the purposes of communicating with other races only). They communicate with one another through ultrasonic tones, inaudible to humans, as well as through touch and movements (and, some experts believe, limited telepathy).

Deepie weapons include sharp daggers, as well as harpoons and tridents (treat as spears) carved from extremely hard corallike growth. They also have crude but effective crossbows.

Summer (Summersun IV)

The planet Summer is an earthlike world just coming out of an ice age; some say Spring would have been a more apt name, but the world's discoverer was from a very cold planet, and to her, its merely cool climate seemed heavenly. A large percentage of the planet's land area is still covered with glaciers. The remainder of the habitable surface areas are either tundra or grassy savannahs, spotted with many small lakes. There is no plant life larger than tall grass. The indigenous animals are well-adapted to the cold; they are covered with thick hairy hides, or live underground where temperatures are not so frigid.

Summer is the headquarters and base planet of the Summersun Mercenary Co-op, the most prominent merc company in the Old Frontiers and surrounding sectors. The entire population of Summer is made up of combat troops, support personnel or dependents. However, well over 2,000,000 of those "support personnel" are not military at all, but farmers employed by the various mercenary units. And several of the larger units are building up their own arms industry. Thus, the planetary economy is becoming increasingly self-sufficient.

Summersun mercs are widely employed throughout the Old Frontiers, serving as corporate security forces on several worlds, including Bollux and Byte, as well as in other private capacities. The Co-op, partly because of its "understanding" with the stellar authorities and largely because of the quality and efficiency of its units, has a virtual monopoly on mercenary services in the sector and in many other sectors as well.

The Co-op had its roots in two smaller mercenary companies, Leatherman's Leathernecks and Wheeler's Commandos, each of which was hired to take control of the planet. Leatherman's was sponsored by a would-be colony group from Utmost; Wheeler's by Goliath Weaponry. The two units, both made up of well-equipped veterans, fought to a standstill after months of hard conflict. Meanwhile, Goliath and the Utmosters were negotiating behind the merc's backs. In the end, Goliath agreed to buy out the Utmost interest...and both defaulted on their payments to the mere companies.

Learning of their employers' faithlessness, Leatherman and Wheeler arranged a parley. They came to an agreement that neither of their former employers had expected — or desired. Leatherman and Wheeler agreed to merge their organizations; then they claimed Summer themselves, in the names of their companies, as payment for services rendered. Not surprisingly, the Mercenary Licensing Agency supported the mere leaders' claims. Goliath couldn't find a competent mercenary company willing to drop on Summer and dig Wheeler and Leatherman out...so they cut their losses and abandoned the planet.

With the Summersun Mercenary Co-op a recognized mercenary organization, Leatherman and Wheeler invited other merc companies to join them. Soon, nearly all of the most respected mercenary units in the sector had joined the Co-op, and Summer had been divided among them. Training facilities were built, first on Summer and then on other worlds in the sector. Cooperative recruiting and arms-buying efforts began. Summersun was a going concern.

Summersun is ruled by the Co-Op Council, composed of the commanding officers (or, more often, their representatives) of the mere units. Only a couple of dozen units are large enough to be represented on the Council. But there are hundreds of smaller units, whose leaders vote on a single Council representative.

The Co-op is currently able to field more troops than many planetary defense forces. Although the majority of Summersun mercs are human, several regiments are either mixed human/alien or all-alien in nature, giving the Co-op a wider range of conditions under which it can successfully field troops. Many of the aliens, by their natures, make excellent special-duty troops.

Infantry, mechanized, air-support or ocean-going units can be provided by the Co-op for nearly any condition. Several hostile environment training facilities have been leased on other worlds, so the

Summers= units are experienced in a wide variety of environments. And the mercs have their own system defense naval force that can be contracted out and that protects Summer itself.

Wherever there is a demand for trained fighting men anywhere in the Old Frontiers or its surroundings, the Summersun mercs are ready for action. Although there are a number of different units within the Summersun Co-op, all nominally independent, the Co-Op Council considers each hiring offer. Under no circumstances will Summersun enter both sides of the same conflict.

Survias (Core-Tiann I)

This is a green and pleasant world, warm and heavily populated. But Survias currently supports one of the most repressive dictatorships ever to develop on any world in human space. Although the planetary government has been authoritarian for hundreds of years, earlier rulers were relatively benevolent. But the current Autarch, Ryoc IV, appears to be literally insane. According to former insiders who fled the planet, her idea of relaxation is to perform sadistic medical experiments on "patients" in the political wing of the State Hospital. Certainly she is arrogant and arbitrary, and her whim means life or death for everyone on Survias.

Although a rebel underground exists, potential uprisings are held firmly in check by Ryoc's secret service, the "Health Police." This force effectively keeps the public under Ryoc's thumb--with threats of treatment for various unhealthy conditions, both physical and mental. Any manifestation of physical illness is now illegal on Survias; among her other problems, Ryoc is a raving hypochondriac, terrified of disease. And any dissatisfaction with Ryoc's benevolent rule is a clear sign of mental illness! Those whom the HPs take away for "treatment" are rarely seen again.

The Health Police, strange though they seem to offworlders, are modern and well-equipped. Survias is a very efficiently- run world...not only do the trains run on time, but they are spotlessly clean. Visitors to the planet joke that dying is a capital offense on Survias. If they knew who was listening, they wouldn't talk so freely.

Among other things, the HPs have almost every computer on Survias "bugged." All computers built on Survias, and all computers legally imported, have monitor circuits built in. As a result, every single transaction or conversation on the planet, if made through a computer or public communication channel, can be examined for treasonous intent. The established resistance knows this, but the common people don't...and any attempt to spread the news is easily blocked by the HPs, who control the media. So most would-be rebels are picked up long before they make contact with the underground.

Survias is a highly developed industrial world, with little uninhabited area. At one time, it was extremely prosperous. It still produces a great deal of wealth, but most of it now funnels into Ryoc's various schemes, including every anti-agathic drug or treatment that is to be had. At least the citizens benefit from the imported medical technology.

All in all, this is a risky place to visit. But Survias' trade opportunities more than overbalance the hazards to offworld visitors--for now. As long as the mad leader confines her attentions to her own people, neighboring worlds seem likely to look the other way. This may change if the mad leader starts to take an aggressive posture toward other planets. But if no offplanet force intervenes, Ryoc seems destined to live and rule for a very, very long time.

Medicine

Preventative medical care is free to Survias citizens, as is treatment for injuries. Visitors can be treated at 1/4 the price most worlds would charge. Quality of care is excellent; the best hospitals are experimenting with TL11 techniques.

Keeping Time

Survias' year is less than 18 Earth days long, and its day is only 8.1 hours. Therefore, on Survias, one day-night period is called a "shift," and three "shifts" make up an official Survias day of just over 24 hours. Because there is no particular advantage to working (or sleeping, or playing) on any particular shift, most establishments on Survias are open around the clock.

Talisman (Perrin III) Quarantined

The jungle world of Talisman is hazardous both because of its hazardous plant life and because of its unstable sun. Perrin, a UV Ceti flare star, was targeted by an early generation ship; rather than head back into space, the colonists decided to take the world as they found it.

Every decade or so, Perrin flares up, bathing the planet in dangerous levels of lethal radiation. Radiation levels remain high for one to three years after the initial flare, eventually dying down to tolerable levels until the next flare. Since the planet has rich mineral resources, many communities simply live underground all the time, building living quarters in the tunnels left by played-out mines. This also keeps them away from the Talisman plant life.

The native life on Talisman is extremely radiation-resistant, and mutates rapidly. It is also highly adaptive and viciously competitive. Specimens introduced to other worlds have rapidly become dangerous pests. Therefore, the world is quarantined. Other worlds will not accept any Talisman goods unless they have been very thoroughly treated and sterilized . . . an expensive process, considering the radiation-resistance of the local life. Even manufactured goods are viewed with suspicion.

Most Talisman plants are hazardous simply because of their hardiness — they're ordinary weeds that grow several feet a day and scatter seed a week after they sprout. But some are dangerous in their own right. In the jungle areas of Talisman, a filter mask is advisable; otherwise, hazardous pollens and other plant byproducts may be inhaled, with widely varying effects (see below). A Talisman filter costs \$100 and lasts (1 die) months, depending on just what the wearer comes in contact with.

As for the animal life, nothing higher than insects has developed, but there is a huge variety of "bugs," many of which are dangerous to jungle explorers.

Talisman Station

This is a typical quarantine station. It is in synchronous orbit over Mainport, and controls a net of observation satellites that watch the whole planet. There are 12 satellites; at least three would have to be eliminated to leave a "blind spot."

The station has a staff of about 100. Its main facilities are a docking area (where ships leaving the planet must stop for inspection) and a hangar bay holding a dozen fighter craft (which are scrambled at any sign of a ship trying to slip past). Should Talisman be approached by a ship too formidable for the station fighters to handle, the station will call for help before the ship gets near. No one except station personnel is allowed outside the inspection docks. Inspection typically takes two hours per 1,000 cy of ship, plus any extra time required if the inspectors insist on irradiating cargo, exposing it to vacuum, fumigating it, and so on. While no government agency is wholly incorruptible, the inspection crews have all seen films of the damage done by Talisman life, and they'll be very hard to buy off.

If interstellar society is anarchic, Talisman Station is still there, operated cooperatively by several nearby planets — perhaps the only thing they can agree on!

Dangerous Talisman Plants

Aldo bush. A low-growing silvery bush, found only in jungle areas. Its pollen, if inhaled, produces hallucinations. Roll vs. HT every 10 minutes to avoid the effects. If someone is affected, the GM should tell him that he sees (for instance) giant spiders, lurking aliens, and so on. Raw aldo pollen brings \$10,000 per pound offplanet, but is highly illegal, and Talisman Station's chemscanners are set to detect it.

Smother fronds. A general name for a wide variety of carnivorous plants whose movable, sticky leaves capture animal prey. Little ones are just shoe-grabbing nuisances. Mediumsized ones can require a ST roll to escape.

Man-sized ones, tall enough to reach a human's face, are dangerous. A victim will be grabbed by (2 dice) fronds at a time. Each frond has a 1/6 chance of slapping itself over nose and mouth, cutting off the victim's breath! An air mask is no help here unless air tanks are also worn. If a frond catches your face, you have only the air in your lungs to go on. You can survive for HT turns while struggling, or (HTx10)

turns if you wait quietly for help. After your air is gone, you lose one Fatigue per turn, until you fall unconscious. Death follows four minutes later, unless you can start breathing again.

Mere strength cannot pull free of fronds this big. Individual fronds can be cut, if the victim has a knife. It takes 10 seconds to cut a frond loose, and a DX roll is required to cut one without coming in reach of another one. Fronds digest their victims bones and all; unless a frond patch has previously caught humans, whose gear is indigestible, there will rarely be any bones or other warning that a patch is dangerous.

Terra Nouveau (Corrin III)

Terra Nouveau is one of those worlds named by a scout with a perverse sense of humor. A small, rugged world on the fringe of the frontier, Terra Nouveau went unclaimed and unsettled until a Kreider Mining Corporation survey discovered rich veins of superdense metals just beneath the planet's surface.

The world is a very unpleasant one. The atmosphere is hot and dense, consisting in large part of corrosive nitrides. Another 2% of the atmosphere is hydrogen sulfide, and the rotten-egg odor clings to everything on the planet. Plant life on Terra Nouveau is healthy, varied, and all deadly poisonous to man. Several species of local bacteria can metabolize sulfur and silicon compounds. This means that flexible seals need to be checked daily, and their failure rate is much higher than on comparable, but lifeless, worlds (-2 to all pressure-integrity checks).

Other than the Kreider Mining outpost, nestled near the small starport, the planet's only installations are the Summersun Hostile Environment Training Camps, leased in exchange for providing system defense and anti-piracy patrols. The main camp is located in a relatively temperate area; a second camp, in the equatorial area, is used for advanced training in extra heat.

The Summersun bases have almost nothing to do with the Kreider installation, though the mercs usually take R&R in the company store/night-club at the starport.

The starport itself barely qualifies for its Class III rating. Since the mercs have their own system defense base, only the mining company and the independent traders that sometimes visit the world use the port.

Aside from the humans who seek out and mine the planet's veins of superdense metals, and the mercenary contingent, Terra Nouveau is uninhabited. The largest known native animals are the gliderlike "Windriders" that are sometimes seen navigating the erratic wind currents. Little is known about the Windriders, as none have ever been captured alive. Their thin, membranous bodies seem to break down and disintegrate at once upon death.

From time to time, miners working remote veins of ore have returned with claims of having seen something man-sized or larger lurking in the dense mists. No evidence of such creatures has ever been discovered, and these are generally dismissed as atmospheric mirages coupled with the overactive imaginations of men working on a lonely, hostile world. Among the miners, a superstition has grown up about these "mist beasts." It is said that when one is spotted, a death will surely follow. The superstition (if it is one) seems to persist, no matter what Kreider's foremen do to squelch it.

Von Berg (Korris III)

Von Berg is a small, frozen world with a thin, dust-filled atmosphere. Coupled with the relatively feeble light from its dim red sun, the dust clouds in the atmosphere keep the world in a state of perpetual twilight, even at the height of its long day. Von Berg has never had any importance other than its great abundance of gemstones and industrial crystals; other than that, it is a typical frozen rockball in a typical system of useless, dead worlds. Its whole population is made up of miners — independent and corporate — and those who provide the goods and services the miners need. However, much of the world's mining activity was curtailed some ten years ago, when a very strange form of life was discovered on the planet.

The discovery of Von Berg's native intelligence came as a fluke. A highly sensitive psionic talent was brought to the world by an independent prospector hoping to locate new fields of crystalline wealth. The psi was troubled by recurrent dreams. Eventually, she realized she was tapping into intelligent thought, and traced it to a field of crystal pillars. She reported this to the Survey Service. All crystal mining

operations were shut down by the Patrol at soon as the horrible implications were realized — the "crystals" mined so far might well have been intelligent, and the mining operations could have killed millions of sentient entities.

A Survey research station was established on Von Berg to study and attempt further communications with the crystal intelligences. Since the shutdown of crystal mining on Von Berg, the planet has undergone a period of economic depression, with careful mining of its less-important radioactives the only allowed industry.

The Crystal Towers

These towers, averaging a foot square and 8-12 feet high, arc, in fact, intelligent and very long-lived. They are incapable of communication with mankind except telepathically, and even this is difficult (-6 to skill, on any attempt by a human psi). They are a sort of "Precursor artifact" — sentient, self-replicating crystal computers. Millions of years ago, they used their telepathic powers to destroy their creators and take the world for themselves. They are, in fact, quite hostile to man, and would happily kill everyone on the planet, even if man had done them no harm. But their telepathy is on the wrong wavelength; they started attacking as soon as the first scout landed on Von Berg, and nobody even noticed until the sensitive arrived and had bad dreams! Unfortunately for them, they are helpless against mankind; they cannot move, and reproduce very slowly.

Most of the crystals found on Von Berg are "living" descendants of Precursor devices, but only the towers are sentient, and only the towers are useful as computers.

None of this is known yet, but it's only a matter of time until Survey brings in a good enough psi to communicate with the towers.

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- 1 Effects of a typical stingsnail venom are as follows: Make a HT-6 roll when injected. A failed roll means the venom does its damage- from 1 hit to 2 dice or more, depending on species. A critical failure means death. Anyone taking damage is nauseated and dizzy — -3 to all attribute checks and skill rolls for 1-6 hours. If the HT-6 roll is made, no damage is taken, but the victim still feels sick for 3-18 minutes; -3 to all attribute checks and skill rolls, as above. (This is a Type F venom from the Bestiary.) Most stingsnails are hunters, scavengers, or both. Almost all species will eat dead meat. Many species will use their venom to kill large creatures, which they then cover in their hundreds and eat as the victim rots away. They have no sight, but keen senses of hearing (to locate prey) and smell (to find decaying meat to eat).
 - 2 Claw damage: 4-2 crushing. Tail stinger: 4 dice impaling, plus 1 die per turn after a successful impale, until victim dies and is drained.
 - 3 Claw damage: 3-2 crushing. Tail stinger: 3 dice impaling, plus (1-2) per turn after a successful impale, until victim dies and is drained.
 - 4 Claw damage. 1+2 crushing. Tail stinger: 1 die impaling, plus (1-4) per turn after a successful impale, until victim dies and is drained.